

**Advisory Committee on Water Information
Annual Meeting
July 13-14, 2010
Crowne Plaza Hotel, Herndon, VA**

Day 1

Roll Call –

Matt Larsen	Doug McLaughlin	Nate Booth	Stephanie Brown
Anne Castle	Charlie Hunsicker	Tracy Hancock	Steve Wolfe
Gary Carter	Sue Lowry	Pixie Hamilton	Tim Smith
Jerry Ward	Bob Goldstein	David Wunsch	Richard Mitchell
John Miller	Bob Marvinney	Carol Lewis	Darrell Pope
Jeff Schloss	Darryl Osterhoudt	Doug Glysson	Chuck Job
Fred Bloetscher	Bob Schreiber	Cliff Duke	Peter Evans
Eileen O’Neill	Peter Tennant	Judy Campbell-Bird	Linda Rone
Harry Zhang	Don Dycus	Leslie McGeorge	Lizz Huss
John Jansen	Wendy Norton	Dave Fuller	Mike Shapiro
Ruben Solis	Chris Carlson	Linda Jacobsen	Don Cline

Welcome to ACWI – Matt Larsen and Anne Castle

Matt welcomed everyone to the meeting. Introductions were made around the room. Matt introduced Anne Castle to the group.

Anne Castle welcomed everyone to the meeting and thanked Matt for his work at USGS. Anne noted Secretary Salazar’s interest in water. She noted that the threats of climate change can have the most impact on water issues. Water is the primary medium through which climate change influences – changes in quality and quantity, demand, etc. We need to improve our data collection, how we share our information to help us adapt to risks posed by climate change. The Department of Interior (DOI) is using WaterSMART as the vehicle toward sustainable water supplies. A Water Census program is greatly needed – last census was in 1978. We need to take a comprehensive look at water supplies and demand in order to prepare for the future. Grant money for States as part of WaterSMART – allow States to incorporate their data into Federal datasets.

Anne Castle requested that ACWI task a subcommittee with review of implementation of plan. She would like ACWI’s comments/advice – make a meaningful program that will last.

A brief overview of the day’s agenda was presented.

Matt opened the floor to questions.

Q: Charlie Hunsicker – Question on funding. Are there any programs in the mix that might be beneficial to the eastern States?

R: Anne Castle – The issues at the time were in western States, but now there are issues across the United States. There are pilots in Delaware Estuary and also in the south. We don’t have authority to provide grant funding for water recycling projects in the east. There is a

provision for cooperative watershed management programs in the Secure Water Act; try to get these efforts going in each State. USGS efforts are nationwide.

Q: Have you thought of using the Groundwater Monitoring Network?

R: Anne Castle – Yes; efforts initially targeted to particular basins. Groundwater monitoring and water quality monitoring networks already have data.

Q: Sue Lowry – Sue commented that it is good to utilize ACWI more effectively. States can help fill in data gaps. As we look at the water census, will States need to put data in a national database? Grants should help provide incentive for States to participate.

R: Anne Castle – States given incentive to integrate their data. Rivers cross State lines. We can't stop at artificial borders.

R: Matt Larsen – Matt requested that the group hold discussion until Wednesday's WaterSMART / Water Census presentation by Eric Evenson.

Update from National Water Quality Monitoring Council (NWQMC) – Pixie Hamilton

Pixie gave a brief overview of the Council's accomplishments for the past year. Pixie noted that Chuck Spooner has retired. Susan Holdsworth will take his place as EPA Co-chair of the Council – 3 years promised.

- **Collaboration and Outreach (C&O) Workgroup – Tracy Hancock**

Tracy discussed communication products coming out of the C&O Workgroup.

- 7th Biennial National Conference:
 - Very successful – 950 water participants from all backgrounds.
 - 290 platform presentations, over 120 technical posters, 15 workshops and short courses.
 - New findings on the quality of the Nation's waters and novel innovations.
 - Side meetings, EPA, USGS, SOGW, and Volunteer Monitors; locally, NGWA, USDA CEAP.
 - Growing interest with NOAA NOS, IOOS, and NFRA; inland to coasts (including estuaries and Great Lakes) – they want to be involved.
- The next National conference may be held in Portland in 2012.
 - Plenary speakers and Award Recipients were noted.
 - Special events for State, regional, and Tribal councils – special panel session – interactive facilitated discussion geared towards capacity building; featured presentations by councils in various stages of development; information on alternatives to councils; how national council can help others.
 - More than 17 councils and partnerships interacting with national council nationwide.
- Web seminars for State, regional, and Tribal councils and watershed partnerships; online tool-kit.
 - Information exchange among councils.
 - Webinars will be featured every other month.
 - Ideas welcome.

- On-line “How-To Tool Kit” for creating and sustaining partnerships and councils.
 - Factsheet on accomplishing more together.
 - PowerPoints for creating and sustaining partnerships and councils.
- First release of the Council’s bi-annual online newsletter (“National Monitoring News”).
 - Newsletter is interactive and can be found on the Council website.
- Web page updates and access.
 - New page design to be released around August 1, 2010.

Pixie suggested to Anne Castle that we have an article on WaterSMART in the next Newsletter. Pixie also suggested using Sue Lowry’s comments as the focus for a future webinar.

(See Tracy Hancock’s [PDF presentation](#))

- **Compatible water-quality formats and web services – Nate Booth**

- Nate commented on the importance of data exchanges.
- Nate gave an overview of USGS NWIS and EPA STORET over time and how they have come back together. Release of portal this year – common interface to get to NWIS and STORET data.
- QW Data exchange:
 - Data stays with the owner but appears as a single database.
 - Data format based on Water Quality Data Elements.
 - Common definitions and semantics.
 - Common web services.
- Project objectives are halfway complete.
- Collaboration:
 - Devo of international water data transfer standard within OGC / WMO: WATERML2.
 - Ties with NOAA IOOS, USDA ARS, CUASHI.
 - Catalog of monitoring locations across agencies, organizations, and scientific disciplines.
- Hydrology domain Working Group – joint working group of the OGC and WMO constituted as an OGC Domain Working Group.

Q: Bob Goldstein – National Science Foundation (NSF) previously had a project. Where does this stand?

R: Nate Booth – noted CUAHSI had a grant from NSF.

R: Matt Larsen commented that the NSF funding was for a David Maidment project. Now looking for a Federal home for the effort.

Q: Doug McLaughlin – Comment on data report.

R: Nate Booth – There are no formal reports yet; using this initiative to feed newer issues.

Nate commented that he hopes ACWI can be a sounding board for future directions.

Pixie commented that the use of additional data besides USGS data increased accuracy of models by 25%

(See Nat Booth's [PDF presentation](#))

- **Methods and Data Comparability Board – Pixie Hamilton**
 - Celebrating 10 years of NEMI – great accomplishment
 - Overview of membership
 - Future directions
 - Outreach
 - Data management; mapping ACT
- **National Water Quality Monitoring Network for U.S. Coastal Waters and Their Tributaries (“Network”)**
 - Reference Presentation
 - The Network supports critical monitoring elements

Q: Linda – Are you looking at Asian Carp in Lake Michigan?

R: Nate Booth – There are modeling efforts that are tied to the Network that are aimed at the issue through the Great Lakes Restoration efforts.

- **Water Information Strategies**

(See Pixie Hamilton's [PDF presentation](#))

Water Quality Statistics and Assessments (WQS&A) Workgroup – Activities, Goals, Accomplishments, and Next Steps -- Doug McLaughlin (NCASI)

- Develop toolbox to support assessment and interpretation of data.
- Link to various monitoring designs.
- Response to Assessment Need.
 - WQS&A Workgroup (formed about 1 year ago)
 - Participants represent State (NJ, IA, UT) and Federal government organizations (USGS, EPA, NPS, USDA), interstate (ORSANCO), NCAS, Battelle, Brown and Caldwell, and others
 - Conference calls in September and December 2009, April 2010
 - White Paper (available on-line)
- Workgroup Objectives (reference slide).
- Next Steps –
 - Key statistical and assessment questions.
 - Develop a recommendation for NWQMC/ACWI.
 - Expansion of NEMI to include a toolbox of statistical and assessment methods.
 - Additional members? Contact Doug McLaughlin.

(See Doug McLaughlin's [PDF presentation](#))

Roundtable – Opportunity for each ACWI Member Organization to Speak

Western States Water Council (WSWC) – WSWC's biggest concern is about USGS streamgaging efforts – want to ensure those activities are not lost. WSWC appreciates USGS efforts. In Texas, WSWC is trying to get in line on data integration efforts.

Joe Lee – support efforts to improve and vet support for Groundwater Monitoring Network. Goals – symposium on sustainability (Philadelphia) (GWPC), look at groundwater report for the Nation, arsenic in GW studies.

National Groundwater Association (NGWA) – Thanks to all and USGS for their support for the Groundwater Monitoring Network. There will be a Ground Water Summit – Baltimore, 2011.

American Water Resources Association (AWRA) – AWRA has increasing interest in water policy issues (water policy dialogue); AWRA Blog; JAWRA – efforts on language – Ken Lanfear involvement.

Water Environment Federation (WEF) – WEF members work for water utilities; water supply planning, storm water patterns, how can they implement sustainable practices, environmental benefits; planning for impacts of climate change.

American Water Works Association (AWWA) – Annual AWWA conference was just held – themed on water sustainability; 1323 has made it through the rounds of AWWA membership; AWWA looking for a way to help with groundwater issues.

North American Lake Management Society (NALMS) – National Lake Month; Dip-In (Secchi dip-in) – submit data to NALMS; conference is Nov. 3-5 in Oklahoma City, Oklahoma – themes – nutrient criteria; well-attended sessions on algal blooms; emphasis on recreational waters; pre workshop for EPA – may involve States; diverse membership in the organization.

Association of State Flood Plain Managers (ASFPM) – Committee on natural benefits of flood plains; natural and beneficial committee; interested in streamgaging, sediment issues, and water quality.

U.S. Army Corps of Engineers (USACE) – The Corps is missing in action in terms of groundwater issues; not as active as they would like to be. The Corps has been tasked with doing a better job of sharing data and information. Active on Subcommittees for Hydrology and Sedimentation; climate change science and impacts on engineering and sustainability; tasked to look at how they manage infrastructure; Matt commented that the Corps is next largest supporter of streamgaging effort.

Environmental Protection Agency (EPA) – EPA gets data from Corps 404 program (sharing the data); FGDC – completed wetland mapping standard last summer, now a national mapping standard – will replace what FWS was using internally; on the web and on FWS (wetlands mapping); working with FWS – implementation plan, revising coordinates standard (out for review in the fall); national wetlands survey – start sampling in spring 2011; National Coastal Assessment – out now, baseline data for the Gulf (prior to the spill), intensify sampling sites; SOGW framework document moving to pilot project phase.

National Oceanic and Atmospheric Administration (NOAA) – NOAA needs to improve capabilities of modeling forecasts. All forecast centers are changing the way they model. New tools will revolutionize capabilities – converting to a new system. Recognizing that the agency

needs to partner more strongly, bring partnerships to RFCs. Take advantage of new technologies. Build on WaterSMART program; IRIS consortium.

Tennessee Valley Authority (TVA) – TVA has put their water info on the Web; making their information more accessible.

Association of State and Interstate Water Pollution Control Administrators (ASIWPCA) – This is a period of leadership transition for the work with EPA on priority issues; monitoring assessment partnership; Ohio Basin – why are there two commissions? Efforts to combine these commissions are being pursued.

Association of State Drinking Water Administrators (ASDWA) – Brandon Kernan has been nominated to be the new ACWI member. ASDWA Annual conference will be held in the fall (Oct 18-21, Pittsburgh). The agency is doing a lot with climate change issues; participation in many groups; water quality.

Association of American State Geologists (AASG) – Represent heads of State Geological Surveys; involved in water issues, water science, water policy in their respective States. The agency is pleased with efforts to develop a National GW monitoring network. Active on SOGW to help move the project forward; of the 5 projects, 3 are run by State geological surveys; committed to helping move the network forward; interested in water census.

Interstate Council on Water Policy (ICWP) – Sue suggests doing better with the suggested modifications. ICWP is pleased that ACWI is specifically mentioned in the Secure Water Act. ICWP annual meeting noted.

Electric Power Research Institute (EPRI) – Interested in forming alliances with sister organizations in the water sector to develop collaborative research programs that would lead to increase energy use efficiency.

National Association of County Planners (NACP) – Integrated to American Association of County Planners. NACP looks forward to providing positive input with respect to land use incentives; interested in climate change as it affects water quality; Gulf oil spill – colleagues are doing daily tracking of the oil spill; model released for forecast of impact of oil spill on inland shores; hope that next year, might talk about modeling efforts / predictive modeling efforts that stem from the Gulf spill.

National Council for Air and Stream Improvements (NCASI) – Funded almost entirely by forest products members; interact at a high level with water resources; impressed with efforts on data exchange; commitment to monitoring and understanding background and reference locations, efforts within USGS to recommit to long-term measuring at reference locations.

Report from Subcommittee on Ground Water (SOGW) – Bob Schreiber

Bob acknowledged Anne Castle, USGS staff, Matt Larsen, ACWI, NWQMC, participants (member organizations and participants, volunteer speakers, calling on others); special thanks to Chuck Spooner and Gail Mallard.

Focus items: WaterSMART and water census, incentives for States, Tribes, districts, etc.; cooperation between organizations, sectors, competing entities; sharing of data effectively.

“Ask what the Network can do for your **AND** ask what you can do for the Network.”

Taking a step toward a long-term goal of “one place for water data.”

Special aspects of ground water – spatial, temporal, geochemical.

Want to rely on principal and major aquifers.

Goals and design – types of networks.

Timeline –

- Pilot project reports due December 31, 2010.
- Final report due March 31, 2011.

Pilot Status – Daryll Pope –

- Pilots were selected in Montana, Texas, Minnesota, Indiana/Illinois, New Jersey.
- All pilots represented at the “kickoff” conference call on January 28, 2010; pilot States are excited about their projects; expectations – evaluating own networks, identify data gaps, work with neighboring States, contribute to a national need, make data more available.
- Daryll reviewed the pilot timeline.
- Tasks of pilots – Network Evaluation –
 - evaluate potential monitoring points within each principal, major or other important aquifer for potential inclusion in the NGWMN
 - flag all or a subset of proposed monitoring points as meeting NGWMS’s criteria
 - identify data gaps
 - field practices
 - data management
 - interface with data portal group – determine how to get data for the portal
- Pilots will complete a report on their work by December. A report template was provided this spring.
- Identify “ballpark” costs for pilot participation, operation and management of NGWMN wells, interface with data portal, capital and O&M.

Daryll gave an overview of the 5 pilot projects.

A comment was made that the public will eventually want to know what the effects of exposure to contaminated water are.

Pilot Data Portal

- Design underway at the USGS Center for Integrated Data Analysis in Madison, WI, led by Nate Booth.
- Portal will be a new system, designed with knowledge of the data exchange standards used by –
 - EPA/USGS Water Quality Data Exchange.
 - The Open Geospatial Consortium and associated groundwater interoperability experiment (USGS, Natural Resources Canada, Australia’s Commonwealth

Scientific and Industrial Research Organisation, and the Consortium of Universities for the Advancement of Hydrologic Science).

- Goal is automated data transfer from data providers, through portal, to public user. Intermediate approach may be needed.

The portal is a common access point for all NGWMN wells, springs, and associated data Staging the work in an incremental fashion – start with a common registry of NGWMN wells; access well characteristics, water levels, and water-quality data through data exchange services, data formats based on ACWI SOGW Data Elements codified in international standards where possible.

Expected outcomes – common feature model, common observation model, common vocabulary.

Q: Goldstein – What is the rationale for not keeping data in a common server? Why do owners keep their data?

R: Nate – What is the current version? The best practice these days is a combination of the 2 methods – keep a recent version of the data; historical data kept to owner systems.

Comment: Wunsch – How much data do you take from people and in what formats. Caution against a database of databases. Suggest that this also have functionality for ease of use for data entry as well as for users. If we can get the Weather Channel and locals to use it easily, it will be a better tool. Data is behind the scenes, but ease of use is a value-added tool.

Q: McLaughlin – What information will be in the pilot efforts related to other locations as the pilots move forward? How much data are required under certain circumstances? Will this be dealt with or is this a next step?

R: Jansen – This comes in the network design.

Comment: Pixie – States' questions will be very different. This will be a continuous challenge as pilots move forward.

(See Bob Schreiber's [PDF presentation](#))

Guest Speaker: Dr. Robert Kellogg, NRCS

- The Upper Mississippi CEAP report was just released 2 weeks ago, so we now have final results, rather than the preliminary results we would have had, if we had been able to meet in February.
- Preliminary results for all water resource regions for CEAP cropland assessment are available now or will be soon.
- The reports address four basic topical areas: evaluation of practices used in 2003-06; effects of those conservation practices in reducing soil erosion and instream loads; estimates of conservation treatment needs; potential gains with additional conservation treatment.
- How is the assessment done? Statistical sampling and modeling approach; cropland survey; field-level models for onsite effects; national water quality model for offsite water quality effects.
- 50% of the upper Mississippi basin is cultivated cropland, more than any other basin (Chesapeake Bay, for example, is only 10%).
- See PowerPoint slides for results vis-à-vis sediment loss and water quality effects.

- **John Tubbs, DOI**, asked about the "average annual reduction in sediment loss" slide; if the goal is to reduce the total load, you may not want to implement additional conservation practices to "get the biggest bang from the last 10%."
- Some practices in some areas (routing through tile drains, which is beneficial for erosion control) may have a negative impact on loads. The conclusion: if you are implementing soil erosion reduction practices, you need to also look at nutrient management.
- About 60% of acres in upper Mississippi are under-treated for one or more resource concerns. By contrast, in the Chesapeake Bay, about 87% of acres are under-treated for 1 or more resource concerns, with nitrogen leaching being the greatest concern.
- The most critical conservation issue in the upper Mississippi basin is nitrogen leaching; we need better nutrient management in general.
- **Q: John Jansen** – What level of nutrients do we need in the upper Mississippi to eliminate the Gulf of Mexico dead zone? **R:** people in the lower Mississippi need to tell us what the load needs to be reduced to. SPARROW is a better tool for answering that question because the CEAP models are designed to answer different questions.
- **Q: Harry Zhang** – How does your model compare to the Chesapeake model? **R:** we're just going to find that out at a meeting that's occurring later this week, so we don't know yet.
- **Q: Robert Goldstein** – Does USDA have any idea how many farmers are ripping out buffer strips in response to corn-based ethanol opportunities? **R:** no, that is not something we're keeping track of.
- **Q: Pixie Hamilton** – Why is nutrient management not stronger in the upper Mississippi? Isn't there good economic incentive for farmers? Is it education or technology that's lacking? **R:** It's probably a matter of education and technical assistance.
- **Q: Eric Evenson** – Did the study look at incentives, education opportunities that were most successful in implementing BMPs? **R:** No, we did not, but that needs to be done as a follow up. **Jeff Schloss:** University of Wisconsin has a whole extension website that addresses that question.

(See Dr. Robert Kellogg's [PDF presentation](#))

Subcommittee on Hydrology –

- Brief history of SOH and membership.
- Online newsletter is available at SOH website.
- Summary of activities of the 5 workgroups and 1 initiative (see PowerPoint).
- Extreme Storms Work Group -- need ACWI guidance on how to pursue development of products. For example, there is 20-40 years of precipitation data that has not been included in current HMRs, so we really need to update our estimates, which are needed urgently by NRC, BOR, and FERC.
- Need ACWI to support these recommendations of the Extreme Storms Work Group (see slides located at http://acwi.gov/acwi2010_july/slide.lib/SOH_ACWI--July13-2010-Blanchard.pdf) and designate a lead agency, and possibly identify funding to support these activities.

- Need ACWI approval of proposed new work group on Hydrologic Information Systems -- to promote sharing of hydrologic information and promote open standards to effectively share and dissemination hydrologic information via the internet.
- SOH is working with CUAHSI on portal possibilities. Should there be a larger effort to establish a data portal that would serve all the ACWI subgroups? Perhaps a new Subcommittee? Or perhaps this is a task for the Subcommittee on Spatial Water Data?
- **Matt Larsen** asked, "Is everyone here aware of the radio frequency issue?" **Steve Blanchard** briefed the group: there is going to be an inventory of all satellite frequencies, with the idea of possibly sell some of them to telecom networks. We are not yet sure what the implications for GOES might be, but if we have to go through private vendors to get the data from the telecoms, we could lose data transmission capability for portions of the country, and we would lose the significant investment that Federal agencies have made to put a robust network in place.
- **Charlie Hunsicker** said they recently completed an extreme storm update for Florida; has FEMA already done HMR updates? **Jerry Web (COE)** says, "Not the type of updates you're talking about. These are based on historic storms from meteorological data; no surge data."
- **Peter Evans** asked how much this Extreme Storm study would cost. **Jerry Webb** thinks about \$500,000 per year, to maintain a core competency and establish a methodology. We would be starting from zero, establishing a whole new program. **Gary Carter** said "I'm not disputing this is an important national need, but there are MANY important national needs, and none of the agencies who need this activity are willing to pay for it. In order to do this right, you would first need several million dollars to put together a rigorous group of scientists to figure out how best to update the PMP studies." **Peter Evans** followed up by saying, "Yes, this is important and complex and expensive, so maybe the best course is to come up with a plan for how to do it properly, so we at least know what would be required. Otherwise we will keep just talking about it." **Jerry Webb** says right now we're between a rock and a hard place; we have thousands of dams we need to evaluate, and we have no basis for evaluating them because we don't have updated precipitation info. We have lost many of the people who used to do these estimates (retired). **John Tubbs** notes that many agencies got increases for climate change work, so the climate science centers are looking at where the gaps are; perhaps ACWI needs to recommend that the climate science centers to look at the extreme storms issue as a major gap that needs to be filled. **Pixie Hamilton** said she thought we were coming to a data sharing solution through various venues, including David Maidment's work; **Nate Booth** says that the way to do it is to define standard data elements and then advocate for use of those data elements.

(See Steve Blanchard's [PDF presentation](#))

NAWQA Cycle 3 Planning Status and Liaison Update

- Briefing sheet on planning cycle 3 -- originally presented to NAWQA Liaison Committee in March 2010.
- Critical issues for NAWQA to address in the next 2 decades: excess nutrients, contaminants, sediment (haven't done much with sediment in NAWQA's first 2 decades), streamflow alteration caused by human activity and climate change (including the natural flow regime and how it affects aquatic communities).
- Building on the NAWQA foundation:

- Cycle 1: monitoring
- Cycle 2: Monitoring + modeling
- Cycle 3: monitoring + modeling + understanding → forecasting
- Sampling 49 sites monthly or more frequently every year since we began. But there are 86 sites where we can sample only every 4 years. The base fixed-site network has eroded. We need about 350 sites, each sampled every year, most with real-time monitoring and ecological sampling, more drinking water intake sites and lake or reservoir intake sites, expanded contaminant coverage, expanded sediment including turbidity monitoring.
- New design feature: real-time water-quality monitoring -- temperature, dissolved oxygen, and turbidity. This real-time monitoring provides surrogates for sediment and bacteria and provides richer datasets for model calibration.
- New design feature: more reference sites, which provide benchmarks for evaluation of biological conditions, background concentrations, and effects of changing climate.
- New design feature: lake and reservoir intake monitoring.
- Next steps: finalize details of draft Cycle 3 design; evaluation options under different budget scenarios; discuss priorities with stakeholders and NRC; finalize science plan next February and begin implementation plan.
- Sept 17, 2010, nutrient circular briefing on Capitol Hill (releasing a 20-year compendium of what NAWQA has accomplished).
- Next Cycle 3 liaison meeting is November 19, 2010.
- **Q: Bob Schreiber** – Do we have a problem with the way we request funding because of the fact that we already have lots of data yet seem unable to speak about water quality conditions with a fair amount of certainty? **R:** we used to have many more data collection sites but no longer. **Bob Schreiber** pointed out that when people read the NAWQA results, the perception could be that there's a lot of certainty in the results of NAWQA. **Donna Myers** said that we're still looking at +/- 25-30% uncertainty for some models for some areas of the country, so the level of uncertainty varies depending on the question you're asking and the portion of the country you're asking about. **Bob Schreiber** said we just need to be careful that people don't look at our apparently sophisticated models and underestimate the uncertainty involved.
- **Q: Leslie McGeorge** – many of the new things we want to add to NAWQA are things the States already have. Will NAWQA consider the use of State-generated data in the Cycle 3 plans? **R:** said that is very possible; our SPARROW model already relies greatly on State datasets, and we will continue to use State-generated data wherever we can.
- **Dave Wunsch** commented that the NAWQA studies tend to be focused on large watersheds, whereas many engineers and planners are looking for data at a finer scale. USGS can't collect data at a fine scale because that's perceived as competing with the private sector. Perhaps we need grants to States so they can collect the fine-scale data, or perhaps the next generation of NAWQA can look at conditions on a finer grain.
- **Q: Robert Goldstein** – "I don't understand what the endgame is for this program. The program mission seems very broad. What are you trying to achieve?" **R:** said we're trying to achieve a reduction in the uncertainty in our models. She can talk to Bob after the meeting to clarify, since we're already over our allotted time for the day.

- **Peter Evans** just looked at the website and thinks the new materials are amazing. It's fascinating to see all the things we discovered with NAWQA work that we didn't even originally know we were looking for.
- **Doug McLaughlin** commented that NAWQA represents one of the best opportunities to develop a consistent dataset that encompasses many different ecosystems around the country. NAWQA has great potential for developing, calibrating, and verifying models that can then be applied to unstudied systems and figuring out how climate change may affect these systems. The consistency is valuable in the long term.

(See Donna Myers [PDF presentation](#))

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Day 2**WaterSMART Availability and Use Assessment – Eric Evenson**

Reference WaterSMART clearinghouse on-line – <http://www.watersmart.gov/> -- users can submit information on-line. DOI wants input from the outside.

Provide feedback quickly.

DOI is putting together a WaterSMART strategy document – first draft is in for review; draft to be populated with bureau input. This will be a strategy document for the Department.

Objective: Place technical information and tools in hands of stakeholders, allowing them to answer questions about water availability.

Eric noted the significance of the Secure Water Act and the National Academy report “Water Future.”

How do WaterSMART and water census interrelate? WaterSMART is a DOI initiative on water conservation. Includes activities in BOR, USGS, and Office of the Assistant Secretary for Water and Science.

Secure Water Act – part of Omnibus Public Lands Bill – signed March 30, 2009.

Section 9507 – Water data enhancement by USSG – full NSIP, creates national groundwater resources monitoring program and a brackish water assessment.

Section 9508 – water availability assessments. Creates a national program to study water quality and quantity.

Requires reporting to Congress – every 5 years.

- Current availability of water resources in the U.S.
- Significant trends affecting water availability.
- Withdrawal and use of surface water and groundwater.

Ad hoc committee – over 20 agencies and organizations; newest member NASA – committee will work with the implementation team to improve the concepts, efforts, and products proposed for inclusion in the Water Census so that they best meet stakeholders needs.

One primary goal is to integrate programs around the theme of water availability broadly around agencies. There has been conversation about integrating programs such as NAWQA with water census, also Integrated Water Resources Information System (IWRIS).

Integration with the Integrated Water Resources Management effort of the Army Corps.

Total initiative – \$9.0 million (new money).

How will the money be used?

- Account for water with a “budget” – account for inputs, outputs, exchanges within hydrologic cycle.
- Develop a nationwide system to deliver water accounting information addressing – precipitation, evapotranspiration, storage in reservoirs, lakes, snow, and ice; surface water, groundwater – recharge rates, water in aquifers; (reference slide).

Envision a seamless coverage of information for a water accounting component – reference map on-line.

Information delivery – a web application for delivering water availability information at scales that are relevant to the user; would be similar to StreamStats.

Allocating \$1.6 million toward Nationwide Analysis System.

An important goal is to enhance the Nation’s water use information – use new methods to estimate water use, develop models of water use based on land use, ability to track water.

New authority in Secure Water Act – give grants to States (water use grants) – States can expand water use databases and help fill in data – Water Use \$3.0 million.

Also understand flow needs for wildlife and habitat. Work with NAWQA and The Nature Conservancy. Assist classifying the streams for their hydro-ecological type, provide tools to assess the ecological effects of hydrologic alteration, assist users to develop flow alteration – Ecological flow \$1.3 million.

National Cooperative Geologic Mapping Program (NCGMP) – integration of geologic mapping, geophysical surveys – Groundwater and brackish water issues – \$1.6 million.

Use the strength of the NAWQA program and tools like SPARROW to demonstrate the degree of water quality impairment that limits water availability (partner with NAWQA).

3 studies focused on selected watersheds; Colorado River Basin, the Delaware River, and the Apalachicola/Chattahoochee/Flint Rivers – the USGS will work collaboratively with stakeholders to assess the technical aspects of water availability.

Focused water availability assessments – \$1.5 million.

Program looks to put technical information and tools into the hands of stakeholders to answer water availability questions.

Comment: A lot of people are looking for information at the regional level. There are good opportunities for collaboration at the regional level.

Q: What is the scale? What is the threshold?

R: Eric Evenson – We have not established a scale / threshold yet. Folks in the West are interested in Fox River; would probably be at HUC-8 or bigger level.

Q: Sue Lowry – How will variability be handled? Will there be a dry scenario and wet scenario?

R: Eric Evenson – Looking to do current information and historical information or do an average; anticipating having a time series of data on-line; hoping to go to the HUC-12 level (under 20 square miles).

Eric commented that the degree of uncertainty goes up – in active discussions with surface water experts about how to extend the available data and how to display the uncertainty.

Eric commented that to get a handle on water use characteristics, may take most of first decade.

There will be a 2010 water use compilation. Complete compilation on a 5-year basis, but other reports may be produced every 2-3 years.

Q: Is there a forecasting component?

R: Eric Evenson – The plan calls for this, but not initially. The plan is to do demand forecasting.

Q: Has this been done in other areas of the world?

R: Eric Evenson – The closest example of what we are doing has been done in Australia. They have a formal accounting system that has been established in legislation.

Q: Margaret Heber – one quarter of HUC-8s have high quality data. If you go to the next level up, what is the degree of uncertainty?

R: Eric Evenson – One-quarter of our gages have long-term records at the HUC-10 level, so HUC-8 is more data rich. The better the job we can do on water use, the better we can make information available.

Q: Barry Long commented on the list of stakeholders on the ad hoc committee and asked if others are encouraged to join?

R: Eric Evenson – Yes.

Barry commented on ACWI vacancies, suggesting NASA. Wendy noted that NASA is on the list of possibilities.

Q: Chris Carlson commented that he is encouraged to see an emphasis on ecological information. Chris encouraged expansion to include looking at ecological water levels.

R: Eric Evenson – It is in our concept paper to look at water levels.

Q: Tony Shaw – Can you comment on the State grant process. Are there resources to ensure gage support?

R: Eric Evenson – We envision an appropriation bill that is passed by the end of the calendar year. If so, \$1 million in grants will be in there. The goal is that every State will get grant funds – but not all in the first year. Money will first go where the greatest improvement is needed – States that need the most help. Water Science Center offices will be involved. It is not intended to use the money for gages.

Q: Groundwater recharge component. Is one goal to estimate storage?

R: Eric Evenson – The focus would be on the change in storage.

(See Eric Evenson's [PDF presentation](#))

Sustainable Water Resources Roundtable Activities – Rick Swanson

Outreach – more than 400 active participants from Federal, State, and local governments; meetings in California, Colorado, Maryland, Michigan, Minnesota, Virginia, and Washington, D.C.

Information pyramid – tell stories.

SWRR indicator framework – water availability, water quality, human uses and health, environmental health, infrastructure and institutions.

Recent and future SWRR activities:

- Working with other Forest Service sustainable roundtables.
- 2 new co-chairs – John Wells and Bob Wilkinson.
- Renewed commitment to new partners.
- Completed and posted March 2010 report with wide range of issues.
- Next meeting is in Minneapolis, Minnesota (October 21-22) – emphasis on upper Mississippi River basin and Great Lakes.
- Working with USGS National Water Census.

Next Steps

- Continue roundtable outreach.
 - Build regional connections.
 - Add new private, nonprofit and public sector partners.
- Refine sample indicators.
 - Address sustainability and scale.
 - Link to national and regional indicator sets.
- Assist agencies in describing the need for programs to collect indicators information.

Q: Barry Long – Conference of Governments is big into sustainability. Have you considered them as member?

R: We are trying to identify potential partners.

(See Rick Swanson's [PDF presentation](#))

Integrated Water Resources Science and Services (IWRSS) – Donald Cline

- ACWI is in a good position to endorse the interagency (NOAA, COE, USGS) IWRSS effort and provide guidance.
- The drivers for IWRSS are to protect life and property, support economic security, protect health and environment, and mitigate escalating risk.
- We can't do this alone. We need a coalition of agencies.
- Why do we need IWRSS? Look at the Mississippi basin -- all the agencies involved in Mississippi water issues have different organizational boundaries (geographically) -- there are 250 entities responsible for water in the Miss basin (31 states, 6 NOAA regions, 4 NWS regions, etc.).
- IWRSS aim is to implement a broad and integrative system to serve as a reliable and authoritative basis for next generation adaptive water resources planning, preparedness, and response.

- We need interoperability between our major decision support systems and tools. We need seamless data exchange, collaborative workflow, common operating picture, and one-stop shopping for water information. All these things lead to integrated water resources science and services.
- Major goals: (1) integrate information delivery and simplify access, (2) increase the accuracy and timeliness of water information, and (3) provide new summit-to-sea high-resolution water resources information and forecasts.
- Description of each agency's role (see PDF slides: http://acwi.gov/acwi2010_july/slide.lib/11_IWRSS_ACWI_2010_Cline.pdf)
- COE did a Federal agency assessment in 2008-09. This assessment revealed a broad need to (1) integrate and improve info access, (2) share technology, information, and models best practices, (3) leverage resources, (4) enable improved collaboration, and (5) establish a common operating picture. IWRSS is the recommended prototype to help deal with these needs.
- **Q: Sue Lowry** – one of your first slides talked about management teams. How many agencies are involved? **R:** right now the effort is 99% the 3 agencies (NOAA, COE, USGS), but we have been talking to other agencies. We are still in the formative stage now, so we decided that 3 agencies was a comfortable number to start with. The effort will grow.
- **Q: Sue Lowry** – what is the incentive for agencies to change their tools to make them compatible? For example, COE probably thinks their reservoir models work just fine. Will someone else take their models and "massage" them? **R:** we may use a number of approaches. In many ways, IWRSS is more of a mind-set or paradigm than a process. The decision of who makes changes that will enable interoperability will depend on the individual circumstances.
- **Q: Charlie Hunsicker** – in the coastal communities, when we try to model flooding from tropical storm surges and also integrate what's coming down the rivers from rainfall, it's difficult to add up the impacts. Is that something IWRSS will try to address? **R:** yes, that's the type of thing IWRSS would try to do. A lot of what we're trying to do is overcome the boundary/jurisdiction/mission impasses (for instance, river to estuary or river to coast).
- **Q: Harry Zhang** – how do you deal with differences in data resolution when you're doing time-series forecasts? **R:** we're talking about physical process modeling, so it shouldn't be too much of a problem. But data assimilation is a key component to the forecasting piece of the puzzle, and there will definitely be gaps, especially in the historical record.
- **Q: Doug McLaughlin** – you mentioned the MOU in draft; is there a time scale for the final version? **R:** We hope to have it done by the end of the summer. **Q: McLaughlin** – in terms of ACWI input, is it best to have that before or after the MOU is finalized? **R:** we're trying to structure the MOU in a way that makes it easy to add potential partners, so ACWI could come into the process later; it's not crucial for ACWI to come into the process before the MOU is finalized. **Q: Doug McLaughlin** – is the MOU an important step in implementing IWRSS? **R:** yes, it is important because it will involve a real commitment from the participating agencies, and we want our top agency leadership to get together and discuss IWRSS regularly. IWRSS is more of an in-depth partnership than a small-scale collaboration.
- **Q: Bob Marvinney** – I'm concerned about duplication. Can you address that? **Don Cline:** we've worked very closely to avoid that, and I think we've done pretty well. We're not talking about creating a new database; we're talking about using tools like web

services to leverage the data we already have at all the various agencies. Duplication is one thing that IWRSS is designed to avoid.

- **Q: Charles Kovatch** – Can you give an example of a gap you're trying to avoid? **R:** providing water resource forecasts is probably the largest operational gap in data. Interoperability and data synchronization are the two gaps that keep coming up over and over again -- i.e., we need to fix situations where one agency has data that's not getting out to the other agencies in a timely fashion. **Jerry Webb:** COE is making real-time decisions on reservoir operations, affecting downstream river forecasts; sometimes that info gets to NWS in a timely fashion and sometimes it doesn't, and we need to get the info out to the forecasters while the info is still pertinent and useful.
- **Q: Chris Carlson** – I'm concerned that we might end up with someone having responsibility to coordinate across many agencies but having no authority to make it work. Are there plans to get NRCS and other critical entities into the process? **R:** we started with only 3 agencies for the sake of starting with something small and manageable, and we're looking for guidance on how to improve and augment the program. There's no question that NRCS and others will be critical.
- **Q: Peter Evans** – in light of comments here, maybe it would be good to get some ACWI input before signing the MOU rather than after. How can ACWI play a constructive role that will add value to your existing investment? **R:** that's a good point and something we need to consider.
- **Matt Larsen:** I want to emphasize Jerry Webb's comment on the need to closely coordinate reservoir management, river forecasting, and streamgaging, so we have a complete picture. Just getting the three agencies to sit together during a storm or flood has greatly increased the accuracy of our forecasts, etc. IWRSS would help to institutionalize this type of collaboration and communication.

(See Doug Cline's [PDF presentation](#))

Interstate Council on Water Policy (ICWP) Activities – Sue Lowry

The ICWP is working with USGS and stakeholder groups who participate in the Cooperative Water Program (CWP).

Sue displayed a map of NSIP gages to be added to the National-Needs streamgage network as funding permits. 1700 gages are needed to complete the network.

NSIP sentinel gages map – the network is well-designed. We know what gages we need and where we need them. The goal is to get the funding.

ICWP is taking meetings to the people due to shortfalls in travel funds, etc.

Regional workshops have been held in the Southeast, California, Texas, the Mid-Atlantic, and other areas.

Recommendations from regional stakeholders:

- Restore CWP capability to match 50/50.
- Full implementation of the NSIP.
- Expand opportunities for in-kind contribution.
- Involve stakeholders more directly and consistently in decisions.

- Expedite reports/results from interpretive studies.
- R&D to enhance monitoring equipment.

Recommendations from 3rd National Stakeholder's Strategy Conference:

- Communicate consequences of insufficient data more effectively.
- Facilitate opportunities to compare and combine data from various sources.
- Promote data sharing (links, portals, etc.).
- Explore capabilities of water monitoring and streamgage coordination councils (promote their establishment?).

Climate Change decision examples:

- Council on Environmental Quality (CEQ) climate change adaptation taskforce.
- Secure Water Act "Climate Change and Water Intergovernmental Panel."
- ICWP offered 4 examples of decisions we need help with:
 - Missouri River runoff estimation in reservoir operations.
 - Delaware River basin management strategy.
 - Colorado River Basin Supplies and Needs.
 - Susquehanna River Basin management strategy.

Value Engineering Assessment of Water Data Functions:

- Vendors volunteered to collaborate with USGS experts 2009-10:
 - YSI and In-Situ
 - Water quality
 - Surface water
 - Ground water
- Recommendations for USGS to incorporate as it sees fit:
 - Available to all: www.icwp.org

Heading into tough times.

- Budget pressures are hitting States harder and later.
- Water management challenges intensify:
 - Population growth
 - Economic and land use development
 - Climate change
- Shifting / uncertain roles for Federal, State, local agencies.

What advice would you give ICWP?

Matt Larsen thanked ICWP for their input into USGS activities.

(See Sue Lowry's [PDF presentation](#))

Seeking ACWI member input on Water Resources Adaptation to Climate Change and update on USGS and Interagency Efforts – Bob Hirsch

The only way to figure out what is happening to our planet is to measure it, and this means tracking changes decade after decade, and pour over the data.

What kinds of changes should we explore? Average flows, seasonal flows, low flows, flood volumes, flood peaks, groundwater levels.

Science challenge: sort out the drivers of change – reservoirs, consumptive use, groundwater depletion, land use, natural variations, greenhouse gas induced climate change.

National efforts should follow two paths:

- Climate models with downscaling.
- Empirical approach (the past century is a global experiment ... every watershed is an experimental subject).

From Milly et al., 2008, "Modeling should be used to synthesize observations; it can never replace them."

Interagency activities:

- Water resources adaptation to climate change: A workgroup of the interagency climate change adaptation taskforce.
- Subcommittee on water availability and quality (SWAQ) has been providing input on science needs.
- Task force recommendations are in preparation.
- Workgroup is serving as "Climate Change and Water Intergovernmental Panel" called for in section 9506 of the Secure Water Act.
- SWAQ is preparing draft materials for the report called for in Section 9506.
- External input is being sought – we want your input.

How did we approach the task?

- Today's decisions have long-term implications.
- Water related changes may be large and have multiple causes.
- The specifics of climate-change induced water-resources change are very uncertain.

Who are the decision makers we want to serve? Water users (farmers, energy companies, municipalities, individuals), agencies responsible for investing in water infrastructure, agencies responsible for protecting and enhancing ecosystems.

Issues that will be addressed – adequacy and stability of water data collection, water census (availability, use, quality), up-to-date hydroclimatic statistics, waterborne disease surveillance, science base for sea-level rise impact on water infrastructure.

Charlie Hunsicker – When States receive grants, it is difficult to answer the question “How will this affect sea level rise?” when applying for grants. This program will help answer this question.

Q: Peter Evans – Reference to climate effects – asked to touch on reasons why a new data network might be needed, and how it’s different.

R: Matt Larsen – Matt just inherited the Global Change Program at USGS; reinvent some things. We can’t stand up for new network of data collection activities for several decades, so we must use what already have.

Comment: Peter Evans – Sentinel gage network is not adequate.

R: Bob Hirsch – The greatest value in terms of investment would be the restoration of monitoring capabilities at places where there is a rich historical record, but for whatever reason, we stopped recording. Rescue data collection in important areas.

Q: Eric Evenson – Do you see a role for water use data (consumptive use data)?

R: Bob Hirsch – Bob sees water use data as important from a broader use; climate change will make people look at how they use the water.

Q: Jerry Webb – Regarding the discussion about hydrometeorological requirements – extreme events; he did not see anything in the paper that addresses this issue. Is there potential for USGS to have a role?

R: Bob Hirsch – The USGS is not a precipitation data collection agency; that is NOAA – the hope is that they could move on this more quickly, speed up the process; USGS has the role of water in streams or ground.

(See Bob Hirsch’s [PDF presentation](#))

Flood Map Modernization and Risk Mapping, Assessment, and Planning – David Maurstad

Flood map modernization:

- 5-year \$1 billion Presidential initiative utilizing funding through FY 2008.
- Digital flood hazard data and maps for 92% of the Nation’s population.
- Enhanced flood map quality – primarily the flood hazard boundary.
- Effective program management and performance measurement.
- Effective partnerships.

Vision of Risk MAP – mapping, assessment, planning; will deliver quality data that increases public awareness and leads to action that reduces risk to life and property.

The Risk MAP framework aligns activities across the risk analysis lifecycle. Solution strategies provide the foundation for motivating action to reduce risk.

Reference <http://www.fema.gov/plan/ffmm.shtm>

(See David Maurstad [PPS presentation](#))

Subcommittee on Sedimentation Overview and Reservoir Sedimentation Database and Website (RESSED) – John Gray

- SOS mission, membership, organization, and history.

- SOS work groups: Federal Interagency Sediment Conference workgroup; Dam Removal / Sediment Management workgroup; National Geomorphic Database workgroup; Reservoir Sedimentation Database workgroup.
- RESSED includes about 1,800 reservoirs and 6,600 surveys for the lower U.S. and Puerto Rico. Short-term goal is to make the current static database dynamic (updatable and query-able). Long-term goal is to develop a truly national, robust, reservoir sedimentation database.
- By September 2010, SOS will have taken RESSED as far as possible on "internal resources" and will need additional funds -- about \$250,000 a year for 4 years, then \$75,000 a year thereafter.
- **Robert Goldstein:** what do you have to do -- measure thousands of reservoirs to figure out how sediment has increased? **John Gray:** low-hanging fruit is to get the thousands of reservoir surveys that have been done in the past, and consolidate that data.
- **Bob Schrieber:** as reservoirs lose capacity, there will be increases in groundwater use, and we need to be mindful of that. **John Gray:** the first bit of information we need is how long we can rely on surface water supplies. If we are losing capacity too fast, then we start looking at groundwater resources.
- **Eric Evenson:** how much storage is represented in the 1,800 reservoirs for which we have info? **John Gray and Jerry Webb:** we could come up with a number, but it might be off by an order of magnitude. Nonetheless, the percentage of total storage we have represented in the 1,800 reservoirs is still very small.

(See John Gray's [RESSED PDF presentation](#))

Subcommittee on Hydrology and Sedimentation – Joint Federal Interagency Conference – Doug Glysson

- Doug Glysson reviewed the field trips, exhibitors, and major sessions from the Las Vegas conference. (See Doug Glysson's [PDF presentation](#))
- Student travel assistance was provided by NSF, and there was a special student poster session and a paper/poster competition that was run by NSF
- There were 536 attendees, representing 9 countries.
- All ACWI members were given a CD of the conference proceedings at the start of the ACWI meeting.
- Conference proceedings are available at www.jfic.us. Information from all previous conferences is available on the ACWI website.

Public Comment Period

No members of the public present for comment.

Review of ACWI action items

1. Anne Castle and John Tubbs – ACWI is requested to appoint a subcommittee to participate in revising and developing Clearinghouse, and an implementation document for WaterSMART.

- a. Clearinghouse – Wendy suggested forming an *ad hoc* group or have the SWRR take on the task since they have already been working with Eric Evenson on the Water Census.
- b. Bob Schreiber suggested additional input from the other subcommittees – would like input from SOGW; SWRR take the lead, but have additional input as well.
- c. Wendy to send message out to ACWI subcommittee chairs and the Roundtable and propose SWRR take the lead with input from the other subcommittees – or other subcommittees nominate someone to join in.
- d. Sue Lowry – the clearinghouse is a technical application; ad hoc for implementation strategy.
- e. Clearinghouse is active right now. Review of clearinghouse can be done from any computer. The implementation strategy is very much still in draft form.
- f. Eric Evenson suggested that the subcommittees give feedback to SWRR and then the SWRR consolidate comments into one document.
- g. Implementation strategy – ad hoc committee to thoroughly review the document.
- h. Encourage subcommittee chairs to distribute invitation to subcommittee members and others.

The Implementation document will be available in August. Bob Schreiber brought up that it is good to have letterhead with a high level invitation to task person / committee to give feedback.

- Wendy will send email to ACWI representatives and alternates to find out who the best contact is for response.
 - Eric Evenson suggests an ad hoc committee for review of the implementation document – may want to debate the content and how ACWI wants to respond and what action ACWI wants to take.
 - Wendy will look up the procedure for forming an ad hoc committee – to do in the next week.
 - Peter Evans suggested attaching a link to the PDF of the Presidential Order – can be found on the website.
 - Wendy will solicit names to serve on the ad hoc committee – getting representation from all subcommittees.
 - Sue Lowry – Is the goal an ACWI letter? Wendy responded yes.
 - Question on if they want a consensus document? Eric Evenson will ask John Tubbs to clarify, but Eric feels that comments should be sufficient.
 - The target for having comments turned in would be about 30 days from release. Eric will try and find out from John a time.
 - Peter Evans suggested thinking about a WebEx conference call to discuss this in the September timeframe.
 - Will be announced in the Federal Register.
2. Pixie Hamilton suggested that the next on-line newsletter for the Council have an article on WaterSMART.
 3. Subcommittee on Hydrology:

- a. Steve Blanchard – We need ACWI to support the recommendations of the Extreme Storm Workgroup, name a lead agency, funding; looking for guidance. ACWI resolution?
 - b. Peter suggested we might benefit from more information about the procedures used in the past.
 - c. Eric Evenson asked if Steve Blanchard can put together an informational session.
 - d. Go through with a resolution now with help from Steve Blanchard and get further clarification.
 - e. Schreiber suggested wording the resolution very narrowly to say “yes, go forward.”
4. Subcommittee on Hydrology – The committee wants approval from ACWI to form a new subgroup on Hydrologic Information Systems. Should we do it under the Subcommittee on Hydrology, or with QW, GW on data operability? Eric Evenson also suggested adding Water Use.
 5. Form a new interdisciplinary subcommittee. Where is portal work best housed? The group concurs that this rises to the level of having its own subcommittee.
 - a. Wendy proposed WebEx sessions every 2-3 months or quarterly where all come to the table to discuss activities. Get coordination from the existing subgroups.
 - b. Jerry Webb – create a workgroup within SOH incorporating members from all subcommittees; bring that proposal to ACWI.
 - c. Eric Evenson suggested that the SOH take the lead, and they will coordinate with the other groups.
 6. Should there be a larger effort with data portal?
 - a. Should there be a new subcommittee or should it be housed under Subcommittee on Spatial Water Data (SSWD)?
 - b. See recommendations of new SOH workgroup before we decide on where to go with the portal.
 7. ACWI recommendation that climate science centers look at extreme storms as a gap that needs to be filled. Decided this was an off the cuff remark, not a formal charge to ACWI.
 8. IWRSS – give them input before or after MOU. Support or endorsement from ACWI on IWRSS; Eric Evenson commented that the ACWI suggested reaching out to other agencies sooner rather than later. Looking for a resolution. Don Cline commented that they are looking for ACWI resolution.
 - a. Wendy will draft a resolution with help from Eric Evenson, Matt Larsen, or Ward Staubitz.
 - b. Wendy will send out to ACWI and will ask for a vote.
 - c. IWRSS will continually inform ACWI of progress and any issues that need to be supported; ACWI supports effort and would like regular updates.
 - d. Don Cline – IWRSS is looking for interaction with ACWI.
 9. Institute interim meetings via WebEx so we're not limited to meeting only once per year.
 - a. Suggestion to have 1 or 2 WebEx's per year.

- b. Suggestion from Bob Schreiber to tie this into the Council meetings.
10. Do we want to have annual meetings in July (or after February) or keep the meeting in February?
- a. This was previously timed with the release of the President's budget.
 - b. Previously, there were discussions of budget in the meeting.
 - c. Would need to do that by March at the latest because of submitting requests to Congress – appropriations hearings are held in March.
 - d. Steve Blanchard suggested using WebEx to address budget issues (interim).
 - e. Wendy will have the group do a Doodle poll.
11. Explore participation by other agencies – including U.S. Department of Agriculture (USDA); waiting for USDA to appoint someone else. They will be important with the WaterSMART initiative. Others:
- a. NASA
 - b. BOR
 - c. DOE
12. 1 empty spot for State and 6 empty spots for NGO – Wendy asked for the group to email her with their suggestions.
- a. Sue Lowry asked for Wendy to send out requirements or criteria.
 - b. Eric Evenson suggested putting on-line the criteria for inclusion.
 - c. Who has fallen off the membership?
13. Bob Hirsch asked for comments from ACWI. Matt Larsen will share a draft copy of the report with ACWI when it is available.



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